
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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TUNGSTEN IN APRIL AND MAY 1997

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from hydrogen-reduced metal powder, averaged 672 tons per month during the first 5 months of 1997. The average monthly reported consumption of tungsten in end-use products was 546 tons during January through May 1997. Trade data for March and April 1997 are included in this issue. Trade data for May will be published in a subsequent issue.

Note

With the exception of prices, all data in this report have been rounded to no more than three significant digits. Totals were calculated by using unrounded data.

Price

Prices for tungsten ore in dollars per metric ton unit (\$/mtu) from *Metal Bulletin* are listed below. Prices in dollars per short ton unit were converted from metric ton unit prices and rounded to the nearest dollar. These prices represent combined prices for wolframite and scheelite ores with a minimum WO₃ content of 65%.

July 1-31, 1997

Low \$45/mtu WO₃ (\$41/stu WO₃)

High \$55/mtu WO₃ (\$50/stu WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

| Period | Concentrate | | | Reported scrap consumption | Intermediate products | | |
|------------------|----------------------|-------------------------|--------------------------|----------------------------|-----------------------|-------------------------|--------------------------|
| | Reported consumption | Imports for consumption | Stocks, end of period 2/ | | Net production 3/ | Reported consumption 4/ | Stocks, end of period 5/ |
| 1996: p/ | | | | | | | |
| January-December | 5,420 | 4,190 | 569 | 2,450 | 7,530 | 11,300 | 1,360 |
| 1997: | | | | | | | |
| January | 426 | 260 | 808 | 224 | 679 | 555 | 1,400 |
| February | 533 | 276 | 584 | 186 | 682 | 516 | 1,440 |
| March | 698 | 480 | 650 | 250 | 676 | 525 | 1,450 |
| April | 670 | 202 | 625 | 229 | 786 | 570 | 1,370 |
| May | 642 | NA | 647 | 251 | 536 | 565 | 1,270 |
| Total | 2,970 | NA | XX | 1,140 | 3,360 | 2,730 | XX |

p/ Preliminary. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Reported by consumers.

3/ Net production of tungsten metal powder, tungsten carbide powder, chemicals, and other products.

4/ Includes data on tungsten carbide powder from secondary sources.

5/ Reported by producers.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

| Period | Production | Consumption | Stocks, end of period 2/ |
|------------------|------------|-------------|--------------------------|
| 1996: p/ | | | |
| January-December | 4,450 3/ | 7,720 | 558 |
| 1997: | | | |
| January | 540 | 663 | 572 |
| February | W | 689 | 586 |
| March | W | 712 | 690 |
| April | W | 770 | 669 |
| May | 743 | 703 | 718 |
| Total | 1,280 | 3,540 | XX |

p/ Preliminary. W Withheld to avoid disclosing company proprietary data.

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Producers and consumers.

3/ Excludes 4 months of withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

| Product | Net production 2/ | | | | Stocks at end of period | | |
|--|-------------------|------------|-----|--------------|-------------------------|------------|-------|
| | 1996 p/ | 1997 April | May | Year to date | 1996 p/ | 1997 April | May |
| Metal powder | 3,720 | 337 | 134 | 1,430 | 815 | 853 | 745 |
| Tungsten carbide powder (made from metal powder) | 3,810 | 449 | 402 | 1,930 | 413 | 415 | 423 |
| Cast and crystalline carbide powder; other | W | -- | -- | -- | W | W | W |
| Chemicals | W | W | W | W | 129 | 102 | 106 |
| Total | 7,530 | 786 | 536 | 3,360 | 1,360 | 1,370 | 1,270 |

p/ Preliminary. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Gross production less quantity used to make other products in table.

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE IN 1997 1/ 2/

(Metric tons, tungsten content)

| End use | April | May | Year to date |
|---|-------|-----|--------------|
| Steel: | | | |
| Tool | 37 | 26 | 63 |
| Other | 13 | 11 | 55 |
| Superalloys | 19 | 19 | 105 |
| Other alloys (excludes steels and superalloys) 3/ | W | W | W |
| Cemented carbides 4/ 5/ | 442 | 452 | 2,190 |
| Mill products made from metal powder | 45 | 44 | 129 |
| Chemical uses 6/ | W | W | W |
| Miscellaneous and unspecified | 14 | 14 | 190 |
| Total | 570 | 565 | 2,730 |

W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Does not include materials used in making primary tungsten products.

3/ Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

4/ Formerly called "Cutting and wear-resistant materials." Includes diamond bit matrices, cemented and sintered carbides, and cast carbide dies or parts.

5/ Based on reported consumption plus information from other sources.

6/ Formerly called "Chemical and ceramic uses."

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS IN 1997 1/ 2/

(Metric tons, tungsten content)

| Period | Ferro-tungsten | Tungsten metal powder | Tungsten carbide powder 3/ | Scheelite (natural, synthetic) | Tungsten scrap | tungsten materials 4/ | Total |
|---------------------|----------------|-----------------------|----------------------------|--------------------------------|----------------|-----------------------|-------|
| Consumption: | | | | | | | |
| January | 33 | 36 | 449 | -- | 30 | 6 | 555 |
| February | 34 | 53 | 394 | -- | 27 | 8 | 516 |
| March | 28 | 44 | 411 | -- | 31 | 10 | 525 |
| April | 47 | 60 | 428 | -- | 27 | 8 | 570 |
| May | 34 | 59 | 438 | -- | 27 | 7 | 565 |
| January-May | 176 | 252 | 2,120 | -- | 142 | 39 | 2,730 |
| Stocks: | | | | | | | |
| January | 21 | 36 | 293 | -- | 25 | 11 | 387 |
| February | 23 | 24 | 280 | -- | 24 | 12 | 363 |
| March | 24 | 24 | 298 | -- | 28 | 17 | 391 |
| April | 25 | 26 | 303 | -- | 29 | 12 | 395 |
| May | 18 | 26 | 287 | -- | 29 | 19 | 379 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Does not include materials used in making primary tungsten products.

3/ Based on reported consumption plus information from other sources.

4/ Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

| Period and country of origin | Ores and concentrates | Ammonium tungstates | Ferro-tungsten | Metal powder | Tungsten carbide | e/ 2/ Other | Total | Total year to date |
|------------------------------|-----------------------|---------------------|----------------|--------------|------------------|-------------|-------|--------------------|
| 1996 total | 4,190 | 1,580 | 535 | 404 | 404 | 2,820 | 9,930 | XX |
| 1997: | | | | | | | | |
| January | 260 | 242 | 45 | 22 | 28 | 363 | 960 | XX |
| February | 276 | 208 | 73 | 28 | 25 | 242 | 851 | XX |
| March: | | | | | | | | |
| Australia | -- | -- | -- | -- | -- | -- | -- | (3/) |
| Austria | -- | -- | -- | -- | 2 | 3 | 5 | 13 |
| Belgium | -- | -- | -- | (3/) | -- | -- | (3/) | 1 |
| Bolivia | 24 | -- | -- | -- | -- | -- | 24 | 112 |
| Canada | -- | -- | -- | (3/) | (3/) | -- | 1 | 6 |
| China | -- | 181 | 15 | -- | 4,030 4/ | 19 | 4,240 | 5,080 |
| Czech Republic | -- | -- | -- | 1 | -- | -- | 1 | 2 |
| France | -- | -- | -- | -- | 5 | (3/) | 5 | 11 |
| Germany | -- | 16 | -- | 5 | 18 | 15 | 54 | 100 |
| Hong Kong | -- | -- | -- | -- | -- | -- | -- | 128 |
| Hungary | -- | -- | -- | -- | -- | 1 | 1 | 2 |
| Ireland | -- | -- | -- | -- | (3/) | (3/) | (3/) | (3/) |
| Israel | -- | -- | -- | (3/) | -- | 1 | 1 | 5 |
| Japan | -- | -- | -- | 1 | (3/) | 2 | 4 | 39 |
| Kazakstan | 238 | -- | -- | -- | -- | -- | 238 | 238 |
| Korea, Republic of | -- | -- | -- | -- | 1 | -- | 1 | 2 |
| Mexico | 14 | -- | -- | -- | -- | 1 | 15 | 44 |
| Netherlands | -- | -- | -- | -- | -- | (3/) | (3/) | 9 |
| Peru | 11 | -- | -- | -- | -- | -- | 11 | 42 |
| Portugal | 58 | -- | -- | -- | -- | -- | 58 | 357 |
| Russia | 136 | -- | 108 | -- | -- | 20 | 264 | 473 |
| Rwanda | -- | -- | -- | -- | -- | -- | -- | 12 |
| Singapore | -- | -- | -- | -- | -- | -- | -- | (3/) |
| Sweden | -- | -- | -- | -- | -- | (3/) | (3/) | 52 |
| Switzerland | -- | -- | -- | -- | -- | 1 | 1 | 1 |
| Taiwan | -- | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| United Kingdom | -- | -- | -- | -- | 21 | 40 | 61 | 62 |
| Total | 480 | 197 | 123 | 8 | 4,070 | 103 | 4,980 | 6,790 |
| Total, year to date | 1,020 | 647 | 241 | 58 | 4,130 | 708 | 6,790 | XX |

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten.

3/ Less than 1/2 unit.

4/ All or part of these data have been referred to the Bureau of the Census for verification.

Note: Imports of waste and scrap in March 1997 totaled 84 metric tons, tungsten content.

Source: Bureau of the Census.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

| Period and country of origin | Ores and concentrates | Ammonium tungstates | Ferro-tungsten | Metal powder | Tungsten carbide | e/ 2/ | Total | Total year to date |
|------------------------------|-----------------------|---------------------|----------------|--------------|------------------|-------|-------|--------------------|
| 1996 total | 4,190 | 1,580 | 535 | 404 | 404 | 2,820 | 9,930 | XX |
| 1997: | | | | | | | | |
| February | 276 | 208 | 73 | 28 | 25 | 242 | 851 | XX |
| March | 480 | 197 | 123 | 8 | 4,070 | 103 | 4,980 | XX |
| April: | | | | | | | | |
| Australia | -- | -- | -- | -- | -- | -- | -- | (3/) |
| Austria | -- | -- | -- | -- | -- | 2 | 2 | 15 |
| Belgium | -- | -- | -- | 1 | -- | (3/) | 1 | 2 |
| Bolivia | 35 | -- | -- | -- | -- | -- | 35 | 147 |
| Canada | -- | -- | -- | (3/) | -- | 2 | 3 | 9 |
| China | -- | 126 | -- | 11 | 10 | 111 | 259 | 5,340 |
| Czech Republic | -- | -- | -- | -- | -- | -- | -- | 2 |
| France | -- | -- | -- | -- | (3/) | (3/) | (3/) | 11 |
| Germany | -- | 13 | 1 | 4 | 27 | 8 | 53 | 154 |
| Hong Kong | -- | -- | -- | -- | -- | -- | -- | 128 |
| Hungary | -- | -- | -- | -- | -- | 1 | 1 | 3 |
| India | -- | -- | -- | -- | 3 | -- | 3 | 3 |
| Ireland | -- | -- | -- | -- | (3/) | (3/) | (3/) | (3/) |
| Israel | -- | -- | -- | -- | 1 | 2 | 3 | 8 |
| Japan | -- | -- | -- | 1 | -- | 2 | 3 | 42 |
| Kazakstan | 45 | -- | -- | -- | -- | -- | 45 | 283 |
| Korea, Republic of | -- | -- | -- | -- | -- | -- | -- | 2 |
| Mexico | 28 | -- | -- | -- | -- | 1 | 29 | 73 |
| Netherlands | -- | -- | -- | -- | (3/) | 3 | 3 | 13 |
| Peru | 32 | -- | -- | -- | -- | -- | 32 | 74 |
| Portugal | -- | -- | -- | -- | -- | -- | -- | 357 |
| Russia | 33 | -- | 29 | -- | -- | -- | 63 | 535 |
| Rwanda | 14 | -- | -- | -- | -- | -- | 14 | 26 |
| Singapore | -- | -- | -- | -- | -- | -- | -- | (3/) |
| Sweden | -- | -- | -- | -- | -- | 1 | 1 | 53 |
| Switzerland | -- | -- | -- | -- | -- | 1 | 1 | 2 |
| Taiwan | -- | -- | -- | -- | -- | -- | -- | (3/) |
| Thailand | 15 | -- | -- | -- | -- | -- | 15 | 15 |
| United Kingdom | -- | -- | -- | -- | 20 | 40 | 60 | 123 |
| Total | 202 | 140 | 30 | 17 | 62 | 175 | 625 | 7,420 |
| Total, year to date | 1,220 | 787 | 271 | 75 | 4,190 | 883 | 7,420 | XX |

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten.

3/ Less than 1/2 unit.

Note: Imports of waste and scrap in April 1997 totaled 179 metric tons, tungsten content.

Source: Bureau of the Census.

TABLE 8
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

| Period and country of destination | Ores and concentrates e/ | Ammonium tungstates | Metal powder e/ | Tungsten carbide | Other e/ 2/ | Total | Total year to date |
|-----------------------------------|--------------------------|---------------------|-----------------|------------------|-------------|-------|--------------------|
| | 17 | 150 | 240 | 1,290 | 289 | 1,990 | XX |
| 1996 total | | | | | | | |
| 1997: | | | | | | | |
| January | 5 | -- | 16 | 69 | 32 | 122 | XX |
| February | -- | -- | 11 | 81 | 21 | 113 | XX |
| March: | | | | | | | |
| Argentina | -- | -- | -- | (3/) | -- | (3/) | (3/) |
| Australia | -- | -- | 1 | (3/) | (3/) | 1 | 2 |
| Austria | -- | -- | -- | 5 | -- | 5 | 5 |
| Belgium | -- | -- | -- | -- | (3/) | (3/) | 1 |
| Brazil | -- | -- | (3/) | -- | (3/) | 1 | 3 |
| Canada | -- | -- | 8 | 34 | 9 | 52 | 125 |
| Chile | -- | -- | -- | -- | -- | -- | (3/) |
| China | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Colombia | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Denmark | -- | -- | -- | (3/) | -- | (3/) | (3/) |
| Egypt | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Finland | -- | -- | -- | -- | -- | -- | (3/) |
| France | -- | -- | -- | -- | 1 | 1 | 25 |
| Germany | -- | -- | 7 | 15 | 15 | 37 | 85 |
| Greece | -- | -- | -- | (3/) | -- | (3/) | (3/) |
| Guatemala | -- | -- | -- | -- | -- | -- | (3/) |
| Hong Kong | -- | -- | -- | -- | (3/) | (3/) | 1 |
| Hungary | -- | -- | -- | -- | 3 | 3 | 3 |
| India | -- | -- | -- | (3/) | 4 | 4 | 9 |
| Indonesia | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Ireland | -- | -- | -- | (3/) | -- | (3/) | 1 |
| Israel | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Italy | -- | -- | -- | 7 | 1 | 8 | 20 |
| Japan | (3/) | -- | (3/) | 2 | 3 | 5 | 25 |
| Korea, Republic of | -- | -- | -- | 2 | 1 | 2 | 6 |
| Lithuania | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Luxembourg | -- | -- | -- | -- | -- | -- | (3/) |
| Malaysia | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Mexico | -- | -- | -- | (3/) | 1 | 2 | 9 |
| Netherlands | -- | -- | 1 | 3 | (3/) | 4 | 7 |
| Norway | -- | -- | -- | (3/) | -- | (3/) | (3/) |
| Papua New Guinea | -- | -- | -- | -- | -- | -- | (3/) |
| Peru | -- | -- | -- | -- | -- | -- | 1 |
| Philippines | -- | -- | -- | -- | 1 | 1 | 1 |
| Portugal | -- | -- | -- | -- | -- | -- | 3 |
| Saudi Arabia | -- | -- | -- | -- | -- | -- | (3/) |
| Singapore | -- | -- | -- | 1 | (3/) | 1 | 2 |
| South Africa | -- | -- | -- | 1 | -- | 1 | 1 |
| Spain | -- | -- | (3/) | -- | 1 | 1 | 3 |
| Sweden | -- | -- | -- | 9 | (3/) | 9 | 22 |
| Switzerland | -- | -- | 4 | -- | (3/) | 4 | 4 |
| Taiwan | -- | -- | -- | 3 | 2 | 4 | 8 |
| Thailand | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Turkey | -- | -- | -- | -- | -- | -- | 1 |
| United Arab Emirates | -- | -- | -- | -- | -- | -- | (3/) |
| United Kingdom | -- | -- | 2 | 9 | 2 | 13 | 20 |
| Venezuela | -- | -- | -- | 1 | -- | 1 | 1 |
| Total | (3/) | -- | 23 | 92 | 46 | 160 | 396 |
| Total, year to date | 5 | -- | 50 | 242 | 99 | 396 | XX |

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes wrought tungsten, ferrotungsten, and other tungstates.

3/ Less than 1/2 unit.

Note: Estimated exports of waste and scrap in March 1997 totaled 9 metric tons, tungsten content.

Source: Bureau of the Census.

TABLE 9
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

| Period and country of destination | Ores and concentrates e/ | Ammonium tungstates | Metal powder e/ | Tungsten carbide | Other e/ 2/ | Total | Total year to date |
|-----------------------------------|--------------------------|---------------------|-----------------|------------------|-------------|-------|--------------------|
| | 17 | 150 | 240 | 1,290 | 289 | 1,990 | XX |
| 1996 total | | | | | | | |
| 1997: | | | | | | | |
| February | -- | -- | 11 | 81 | 21 | 113 | XX |
| March | (3/) | -- | 23 | 92 | 47 | 166 | XX |
| April: | | | | | | | |
| Argentina | -- | -- | -- | -- | -- | -- | (3/) |
| Australia | -- | -- | (3/) | (3/) | (3/) | 1 | 3 |
| Austria | -- | -- | -- | 3 | (3/) | 3 | 7 |
| Belgium | -- | -- | -- | -- | (3/) | (3/) | 1 |
| Brazil | -- | -- | (3/) | (3/) | (3/) | (3/) | 3 |
| Canada | -- | -- | 5 | 35 | 7 | 49 | 172 |
| Chile | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| China | -- | -- | (3/) | -- | (3/) | (3/) | (3/) |
| Colombia | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Denmark | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Egypt | -- | -- | -- | -- | -- | -- | (3/) |
| Finland | -- | -- | -- | -- | -- | -- | (3/) |
| France | -- | -- | (3/) | (3/) | 1 | 1 | 26 |
| Germany | -- | -- | 16 | 12 | 18 | 46 | 132 |
| Greece | -- | -- | -- | -- | -- | -- | (3/) |
| Guatemala | -- | -- | -- | -- | -- | -- | (3/) |
| Hong Kong | -- | -- | -- | -- | 1 | 1 | 2 |
| Hungary | -- | -- | -- | -- | 1 | 1 | 5 |
| India | -- | -- | -- | (3/) | 2 | 2 | 12 |
| Indonesia | -- | -- | -- | -- | -- | -- | (3/) |
| Ireland | -- | -- | -- | (3/) | (3/) | (3/) | 1 |
| Israel | -- | -- | -- | -- | (3/) | (3/) | 1 |
| Italy | -- | -- | -- | 5 | (3/) | 5 | 24 |
| Japan | -- | 10 | (3/) | 1 | 3 | 14 | 38 |
| Korea, Republic of | -- | -- | -- | 1 | 2 | 3 | 8 |
| Lithuania | -- | -- | -- | -- | -- | -- | (3/) |
| Luxembourg | -- | -- | -- | -- | -- | -- | (3/) |
| Malaysia | -- | -- | -- | -- | (3/) | (3/) | 1 |
| Mexico | -- | -- | 1 | (3/) | 2 | 4 | 13 |
| Netherlands | -- | -- | -- | -- | (3/) | (3/) | 7 |
| New Zealand | -- | -- | -- | -- | (3/) | (3/) | (3/) |
| Norway | -- | -- | -- | -- | -- | -- | (3/) |
| Papua New Guinea | -- | -- | -- | -- | -- | -- | (3/) |
| Peru | -- | -- | -- | -- | -- | -- | 1 |
| Philippines | -- | -- | -- | -- | -- | -- | 1 |
| Portugal | -- | -- | -- | -- | -- | -- | 3 |
| Saudi Arabia | -- | -- | -- | -- | -- | -- | (3/) |
| Singapore | -- | -- | -- | 1 | 1 | 1 | 3 |
| Slovakia | -- | -- | (3/) | -- | -- | (3/) | (3/) |
| South Africa | -- | -- | -- | 11 | -- | 11 | 12 |
| Spain | -- | -- | (3/) | -- | 1 | 1 | 4 |
| Sweden | -- | -- | -- | 20 | (3/) | 21 | 42 |
| Switzerland | -- | -- | (3/) | (3/) | (3/) | (3/) | 6 |
| Taiwan | -- | -- | -- | 1 | 2 | 3 | 11 |
| Thailand | -- | -- | -- | -- | (3/) | (3/) | 1 |
| Turkey | -- | -- | -- | -- | -- | -- | 1 |
| United Arab Emirates | -- | -- | -- | -- | -- | -- | (3/) |
| United Kingdom | -- | -- | (3/) | (3/) | 1 | 1 | 22 |
| Venezuela | -- | -- | -- | 1 | -- | 1 | 1 |
| Total | -- | 10 | 23 | 92 | 44 | 169 | 565 |
| Total, year to date | 5 | 10 | 73 | 334 | 144 | 565 | XX |

e/ Tungsten content estimated in part. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes wrought tungsten, ferrotungsten, and other tungstates.

3/ Less than 1/2 unit.

Note: Estimated exports of waste and scrap in April 1997 totaled 41 metric tons, tungsten content.

Source: Bureau of the Census.